

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-46 (Cancelled).

47 (Currently Amended). A method ~~for~~of collecting information relating to a communication network and to substantially all nodes operating in said communication network, the method comprising:

detecting substantially in real-time, data conveyed by one or more detected nodes operating in the communication network in a manner that is transparent to said one or more detected nodes, giving rise to the detected nodes data, thereby detecting said data passively;

analyzing said detected data for identifying:

nodal information relating to the one or more detected nodes ~~and for identifying missing information; and querying one or more queried nodes for the missing information;~~

nodal information relating to said communication network;

missing information regarding at least one of said one or more detected nodes; and

missing information regarding said communication network; and

storing at least a part of the identified information on a storage device comprising a computer readable medium accessible thereto;

querying at least one of one or more nodes operating in said communication network for said missing information provided at least partially from said storage device, giving rise to the queried nodes, thereby collecting said missing information actively.

48 (Currently Amended). The method of Claim 47, ~~wherein, further~~
comprising:
~~there are received other~~receiving additional data relating to the communication network; and
~~and the analyzing detected data analyzes also the other~~said additional data for identifying the missing information.

49 (Currently Amended). The method of Claim 47, wherein the nodal information ~~includes~~ comprises operating system information relating to operating systems operating on the one or more nodes.

50 (Previously Presented). The method of Claim 49, wherein the nodes are included in at least one of the following: detected nodes and queried nodes.

51 (Currently Amended). The method of Claim 49, wherein ~~detecting the~~
detection of the data includes ~~comprises~~ detecting at least one type of message from a group ~~including~~ comprising DHCP (Dynamic Host Configuration Protocol) messages and SYN packets.

52 (Currently Amended). The method of Claim 49, wherein the analyzing ~~includes further comprises:~~

receiving data corresponding to data conveyed by a detected node, giving rise to the received data;

inspecting said received data for one or more characteristics of a known operating system; and

if inspecting of said received data reveals that the data conforms ~~with the~~ with said one or more characteristics, indicating that the known operating system operates on the detected node.

53 (Currently Amended). The method of Claim 47, wherein the nodal information ~~includes~~ comprises runtime information relating to running processes.

54 (Currently Amended). The method of Claim 53, wherein the runtime information relating to running processes ~~include~~ comprises at least ~~one from one of~~ the following: information relating to network running processes operating on the detected nodes; and information relating to local running processes operating on the detected nodes.

55 (Currently Amended). The method of Claim 47, wherein the nodal information ~~includes~~ comprises hardware information relating to hardware components associated with the respective detected nodes.

56 (Currently Amended). The method of Claim 47, wherein the nodal information ~~includes~~ comprises topology information relating to physical topology of the communication network.

57 (Currently Amended). The method of Claim 47, wherein the querying ~~includes;~~ further comprises:

generating a query message corresponding to the missing information for ~~sending~~ conveying said query message to one or more nodes to be queried ~~nodes;~~

conveying the query message to said one or more nodes, giving rise to the queried nodes.

58 (Currently Amended). The method of Claim 57, wherein the querying further ~~includes~~ comprises:

receiving at least one response that corresponds to the query message; and
processing the at least one response to retrieve information corresponding to the missing information.

59 (Currently Amended). The method of Claim 57, wherein the query message is one of the following: an ARP (Address Resolution Protocol) ~~request,~~ request; an ICMP (Internet Control Message Protocol) echo request; and a TCP-SYN request.

60 (Currently Amended). The method of Claim 57, wherein the generating is done in accordance with a test policy₁ and wherein the test policy is selected from a group of available test policies.

61 (Currently Amended). The method of Claim 57, wherein the generating is done in accordance with a test policy₁ and wherein the test policy is selected in accordance with a statistical computation.

62 (Previously Presented). The method of Claim 57, wherein said missing information relates to at least one running process operating on respective queried nodes.

63 (Currently Amended). The method of Claim 57, wherein the detected nodes ~~include~~ comprises at ~~least~~ least one queried node₁ and ~~the data~~ the data conveyed by detected nodes includes ~~at least one~~ at least one response that corresponds to the query message.

64 (Currently Amended). A network information collector ~~for collecting~~ configured to collect information relating to a communication network and to substantially all nodes operating in said communication network, the ~~system~~ network information collector comprising:

a network detector ~~for detecting~~ configured to detect, substantially in real-time, data conveyed by one or more detected nodes operating in the communication network in a manner that is transparent to the one or more detected nodes; ~~an analyzer for analyzing detected~~

~~data for identifying nodal information relating, giving rise to the detected nodes and for identifying missing information; and data, thereby detecting said data passively;~~

~~a query engine for querying one or more nodes queried nodes for the missing information;~~

~~an analyzer configured to analyze said detected data for identifying:~~

~~nodal information relating to said one or more detected nodes;~~

~~nodal information relating to said communication network;~~

~~missing information regarding at least one of said one or more detected nodes; and~~

~~missing information regarding said communication network; and~~

~~a query engine configure to query at least one of one or more nodes operating in said communication network for said missing information, giving rise to the queried nodes, thereby collecting said missing information actively.~~

65 (Currently Amended). The network information collector of Claim 64, further ~~including~~comprising:

~~an input device for receiving other~~configured to receive additional data relating to the communication network;~~and,~~

wherein the analyzer is configured to analyze also said additional data for identifying the other data for identifying the missing information.

66 (Currently Amended). The network information collector of Claim 64, wherein the analyzer is configured to analyze nodal information that includes operating system information relating to operating systems operating on the one or more detected nodes.

67 (Currently Amended). The network information collector of Claim 66, wherein ~~detecting the detection of the data~~ conveyed by the one or more detected nodes ~~includes~~ comprises detecting at least one type of message from a group ~~including comprising~~ DHCP (Dynamic Host Configuration Protocol) messages; and SYN packets.

68 (Currently Amended). ~~The network~~ the network information collector of Claim 66, wherein ~~the analyzer includes~~ further comprises:

an input ~~for receiving~~ device configured to receive data, ~~the giving rise to the detected data,~~ said received data corresponds to data conveyed by a detected node;

a data inspector coupled to said input device, the data inspector being configured to inspect said received data for one or more characteristics of a known operating system; and

a data marker coupled to said data inspector and being responsive thereto, the data marker being configured to indicate that the known operating system ~~operates~~ operates on the detected node.

69 (Currently Amended). The network information collector of Claim 64, wherein the analyzer is configured to analyze nodal information that ~~includes~~ comprises runtime information relating to running processes.

70 (Currently Amended). The network information collector of Claim 64, wherein the query engine includes:

a query message generator ~~for generating~~ configured to generate a query message corresponding to the missing information for conveying said query message to nodes to be queried; and

an output device ~~for conveying~~ configured to convey the query message to the nodes to be queried, giving rise to the queried nodes.

71 (Currently Amended). The network information collector of Claim 70, wherein the query engine further includes:

an input device ~~for receiving~~ configured to receive at least one response that corresponds to the query message; and

a response processor ~~for processing the~~ configured to process said at least one response to retrieve information corresponding to the missing information.

72 (Currently Amended). A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform ~~method for~~ method of collecting information relating to a communication network and to substantially all nodes operating in said communication network, the method comprising:

detecting, substantially in real-time, data conveyed by one or more detected nodes operating in the communication network in a manner that is transparent to said one or more detected nodes, giving rise to the detected nodes data, thereby detecting said data passively;

analyzing said detected data for identifying ~~nodal information relating to the detected nodes and for identifying missing information; and;~~

~~querying one or more queried nodes for the missing information.~~

nodal information relating to said one or more detected nodes;

nodal information relating to said communication network;

missing information regarding at least one of said one or more detected nodes; and

missing information regarding said communication network; and

querying at least one of one or more nodes operating in said communication network for said missing information, giving rise to the queried nodes, thereby collecting said missing information actively.

73 (Currently Amended). A computer program product comprising a computer useable medium having computer readable program code embodied therein for collecting information relating to a communication network and to substantially all nodes operating in said communication network, the computer program product comprising:

computer readable program code for causing the computer to detect, substantially in real-time, data conveyed by one or more detected nodes operating in the communication

network in a manner that is transparent to said one or more detected nodes, giving rise to the detected nodes data, thereby detecting said data passively;

computer readable program code for causing the computer to analyze said detected data for identifying ~~nodal information relating to the detected nodes for identifying missing information;~~ and;

nodal information relating to said one or more detected nodes;

nodal information relating to said communication network;

missing information regarding at least one of said one or more detected nodes; and

missing information regarding said communication network; and

computer readable program code for causing the computer to query at least one of one or more ~~queried nodes~~ nodes operating in said communication network for the missing information, giving rise to the queried nodes, thereby collecting said missing information actively.